

What is claimed is:

1. A liquid crystal display, comprising:

a memory storing, until a next time, current data indicating current brightness of each pixel provided in a liquid crystal panel;

a look-up table precendently storing (i) combinations of previous data and the current data, the combinations having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;

control means for outputting an output signal as corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;

a heater heating the liquid crystal panel; and

heater control means for controlling start and stop of heating by the heater, in such a manner as to keep a temperature of the liquid crystal panel to be not more than $\pm 3^{\circ}\text{C}$ of a predetermined target temperature which is within a range between 33°C and 63°C .

2. The liquid crystal display as defined in claim 1,

wherein, a number of the look-up table is one.

3. The liquid crystal display as defined in claim 1, wherein, the look-up table is arranged so as to correspond to the target temperature.

4. The liquid crystal display as defined in claim 1, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

5. The liquid crystal display as defined in claim 2, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

6. The liquid crystal display as defined in claim 1, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.

7. A liquid crystal display, comprising:

a memory storing, until a next time, current data indicating current brightness of each pixel provided in a liquid crystal panel;

a look-up table precedently storing (i) combinations of previous data and the current data, the combinations

having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;

control means for outputting an output signal as corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;

a heater heating the liquid crystal panel; and

heater control means for controlling the heater so as to either stop the heating by the heater when a temperature of the liquid crystal panel exceeds a threshold value which is 1°C through 1.5°C higher than a target temperature, or start the heating by the heater when the temperature of the liquid crystal panel goes below a threshold value which is 1°C through 1.5°C lower than the target temperature, the target temperature being determined in advance to be in a range between 33°C and 63°C.

8. The liquid crystal display as defined in claim 7, wherein, a number of the look-up table is one.

9. The liquid crystal display as defined in claim 7,

wherein, the look-up table is arranged so as to correspond to the target temperature.

10. The liquid crystal display as defined in claim 7, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

11. The liquid crystal display as defined in claim 8, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

12. The liquid crystal display as defined in claim 7, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.

13. A liquid crystal display, comprising:

a memory storing, until a next time, current data indicating current brightness of each pixel provided in a liquid crystal panel;

a look-up table precedently storing (i) combinations of previous data and the current data, the combinations having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;

control means for outputting an output signal as

corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;

a heater heating the liquid crystal panel; and

heater control means for controlling start and stop of heating by the heater, in such a manner as to keep a difference between a temperature of the liquid crystal panel and a target temperature to be not more than a predetermined threshold value, the target temperature being a temperature at which, by facilitating the grayscale transition by the control means, each pixel is virtually able to reach a desired grayscale level in every grayscale level transition,

the threshold value being set in such a manner as to keep a difference between a grayscale level at which a pixel reaches as a result of the grayscale level correction by the control means and a target grayscale level to be within an allowable range.

14. The liquid crystal display as defined in claim 13, wherein, a number of the look-up table is one.

15. The liquid crystal display as defined in claim 13, wherein, the look-up table is arranged so as to correspond to the target temperature.

16. The liquid crystal display as defined in claim 13, wherein, the target temperature is determined to be within a range between 33°C and 63°C.

17. The liquid crystal display as defined in claim 14, wherein, the target temperature is determined to be within a range between 33°C and 63°C.

18. The liquid crystal display as defined in claim 13, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

19. The liquid crystal display as defined in claim 14, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

20. The liquid crystal display as defined in claim 13, wherein, the allowable range is such a range that an error between a target brightness and a brightness obtained as a result of the grayscale transition to the current time is not more than $\pm 20\%$.

21. The liquid crystal display as defined in claim 14, wherein, the allowable range is such a range that an error between a target brightness and a brightness obtained as a result of the grayscale transition to the current time is not more than $\pm 20\%$.

22. The liquid crystal display as defined in claim 13, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.